

LABOR MARKET OUTLOOK BEFORE THE CORONA PANDEMIC: DECREASE IN UNEMPLOYMENT ALONG WITH DROP IN EMPLOYMENT AND LABOR FORCE

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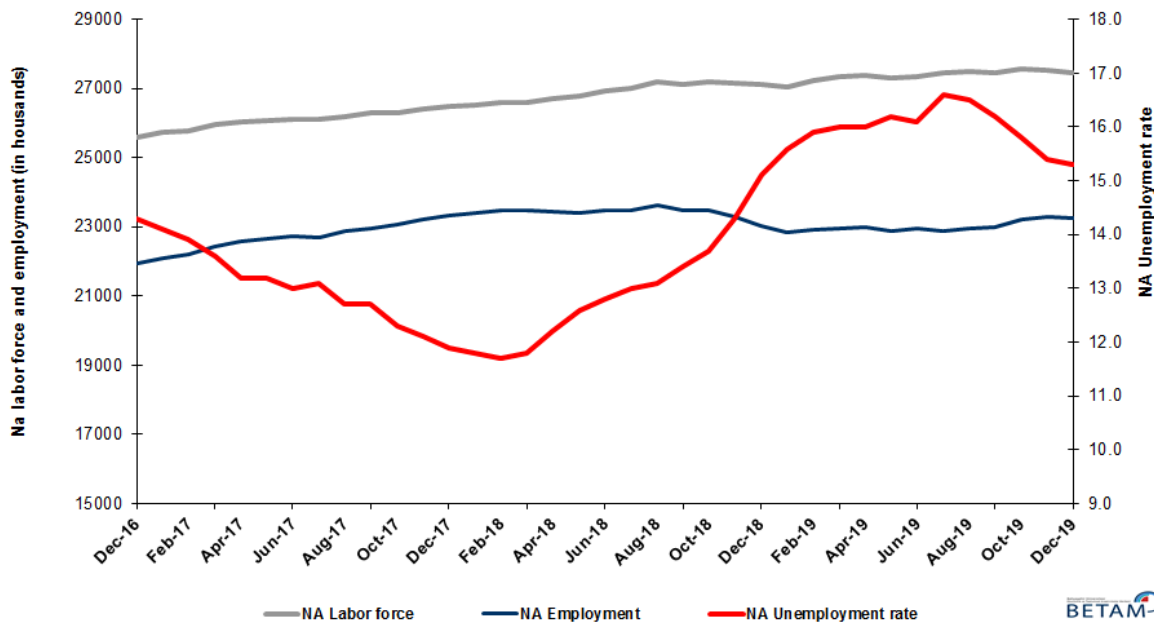
Executive Summary

Seasonally adjusted labor market data shows that in the period of January 2020, non-agricultural unemployment rate turned out to be 14.6 percent, with 5.0 percentage point decrease compared to December 2019. In this period, non-agricultural employment decreased by 69 thousand while non-agricultural labor force decreased by 241 thousand. Despite decreases in employment, the number of unemployed decreased by 172 thousand as a result of the unprecedented decline in the labor force. According to sectorial data, employment losses occurred in all sectors except construction. While construction employment increased by 2 thousand, manufacturing employment and services employment decreased by 50 thousand and 20 thousand, respectively. Based on the seasonally adjusted data, while female employment increased by 39 thousand, female labor force decreased by 58 thousand. Thus, female non-agricultural unemployment rate turned out to be 19.6, with 1.0 percentage point decrease compared to December 2019.

Decreases in all non-agricultural labor market indicators

Seasonally adjusted data shows that, non-agricultural labor force reached 27 million 419 thousand after the decrease of 241 thousand in January 2020 (December-January-February) compared to December 2019 (November-December-January). The labor force increased by 48 thousand (0.2 percent) throughout the last year. Such a slowdown in the labor force was observed for the first time. Non-agricultural employment reached 23 million 168 thousand following a decrease of 69 thousand (Figure 1, Table 1). Despite declining employment, the number of non-agricultural unemployed decreased by 172 thousand and reached 3 million 961 due to the severe decline in labor force. Thus, non-agricultural unemployment rate dropped to 14.6 percent.

Figure 1. Seasonally adjusted non-agricultural labor force, employment, and unemployment



Source: Turk stat, Beta

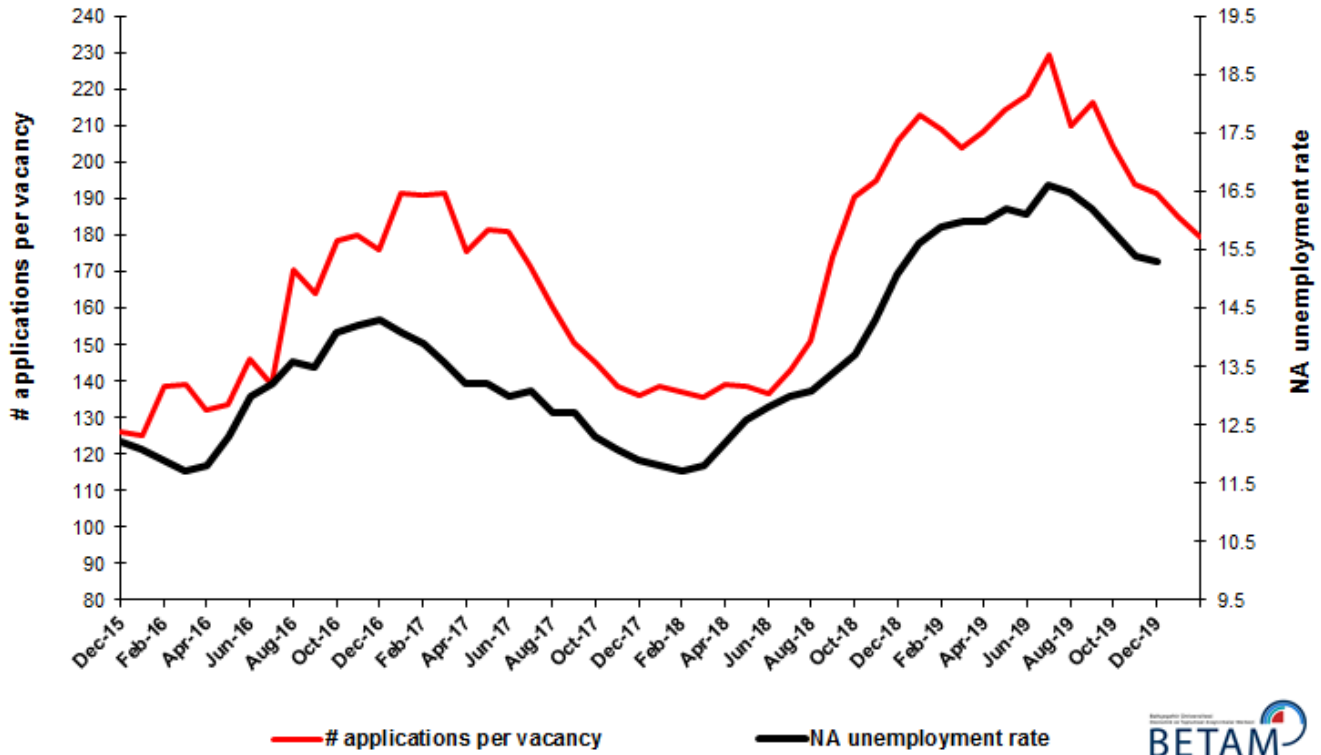
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Unemployment rate is expected to decrease in February 2020

Betam's forecasting model had predicted that non-agricultural unemployment rate would be 15.0 for January 2020, and non-agricultural unemployment rate occurred as 14.6 percent. We think that the sizable difference between the forecasted rate and the occurrence is due to the unexpected drop in labor force. Our forecasting model predicts a decrease of 0.2 percentage point in non-agricultural unemployment to 14.4 percent in February 2020. Forecasting model details are available on Betam's website.¹ Kariyer.net² application per vacancy series used in the Beta forecasting model is depicted in Figure 3. Kariyer.net series is only one of the inputs of Betam forecast model. Indeed, several variables such as employment agency (İŞKUR) data, reel sector confidence index, capacity utilization rate are used in forecasting.

Figure 2 Seasonally adjusted non-agricultural unemployment rate and application per vacancy



Source: Kariyer.net, Turkstat, Betam

Employment losses in manufacturing and services sectors

According to seasonally adjusted sectorial labor market data, in the period of January 2020 compared to December 2019, employment losses occurred in all sectors except construction (Figure 3, Table 2).³ After the decrease of 97 thousand in December 2019, employment in agriculture sector decreased by 32 thousand in January 2020. Following the decrease of 7 thousand in December 2019, the number of employed in services sector decreased by 20 thousand. After the decrease of 59 thousand in December 2019, employment in manufacturing sector decreased by 50 thousand in the period of January 2020. Construction is the only sector with the increase of 2 thousand employed.

¹ For detailed information on Betam's forecasting model, please see Betam Research Brief 168 titled as "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini". For the innovations in the model please see Betam Research Brief 14 titled as "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini"

Soybilgen, B., "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini", Betam Research Brief 168.

<http://betam.bahcesehir.edu.tr/2014/06/kariyer-net-verisiyle-kisa-vadeli-tarim-disi-issizlik-tahmini/>

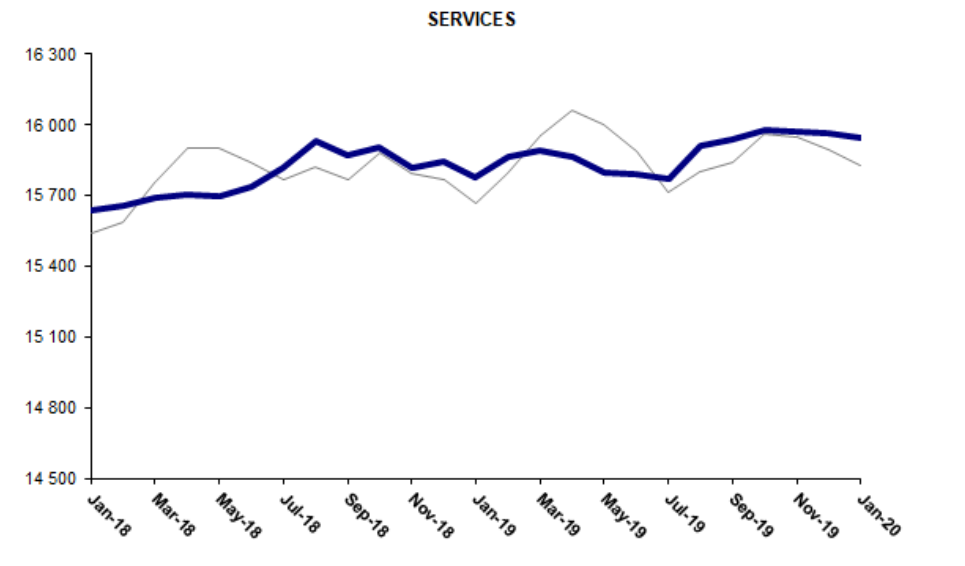
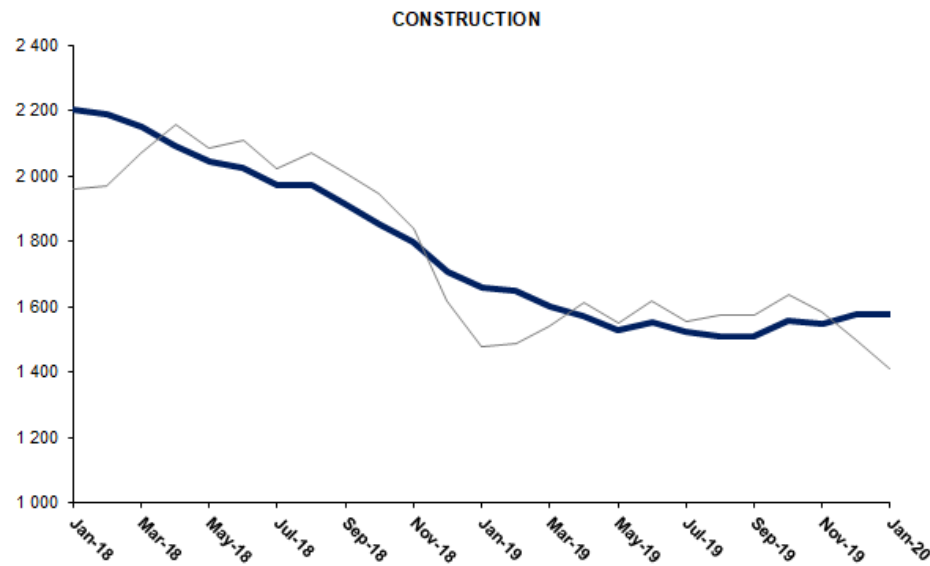
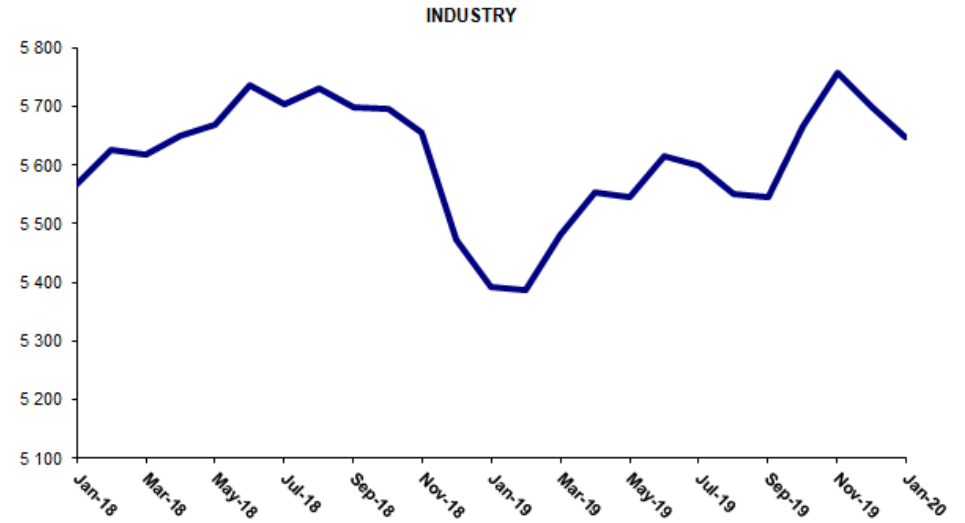
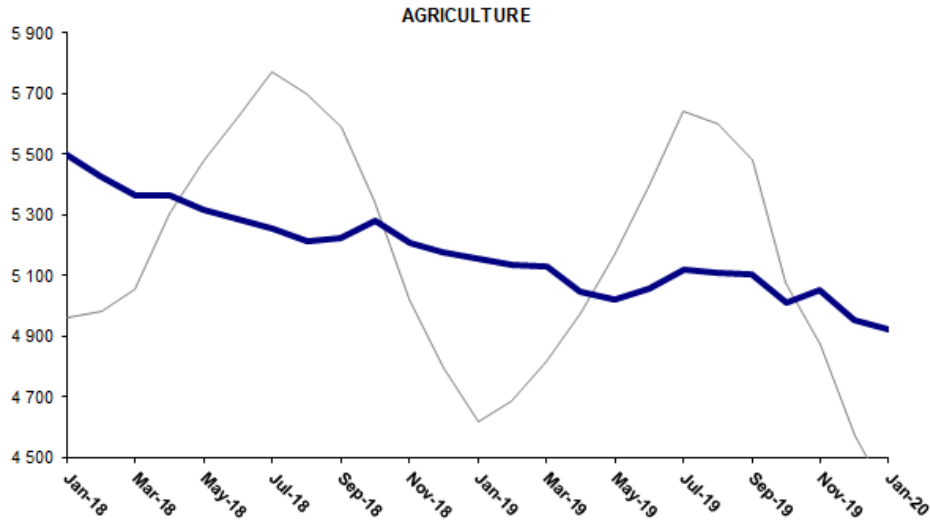
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

<http://betam.bahcesehir.edu.tr/2015/08/mevsim-etkilerinden-arindirilmis-tarim-disi-issizlik-tahmini/>

² Betam has been calculating application per vacancy using series released by Kariyer.net for a while. Seasonal and calendar adjustment procedure is applied to application per vacancy series. A decrease in applications per vacancy may be caused by an increase in vacancies or by a decrease in the number of applications. An increase in vacancies signals economic growth while decreasing number of applications indicates a decrease in number of people looking for a job. Monthly labor market series released by TurkStat is the average of three months. Therefore, application per vacancy statistics calculated using Kariyer.net series is the average of three months as well.

³ Employment in each sector is seasonally adjusted separately. Hence the sum of these series may differ from the seasonally adjusted series of total employment. The difference stems from the non-linearity of the seasonal adjustment process.

Figure 3: Employment by sectors (in thousand)

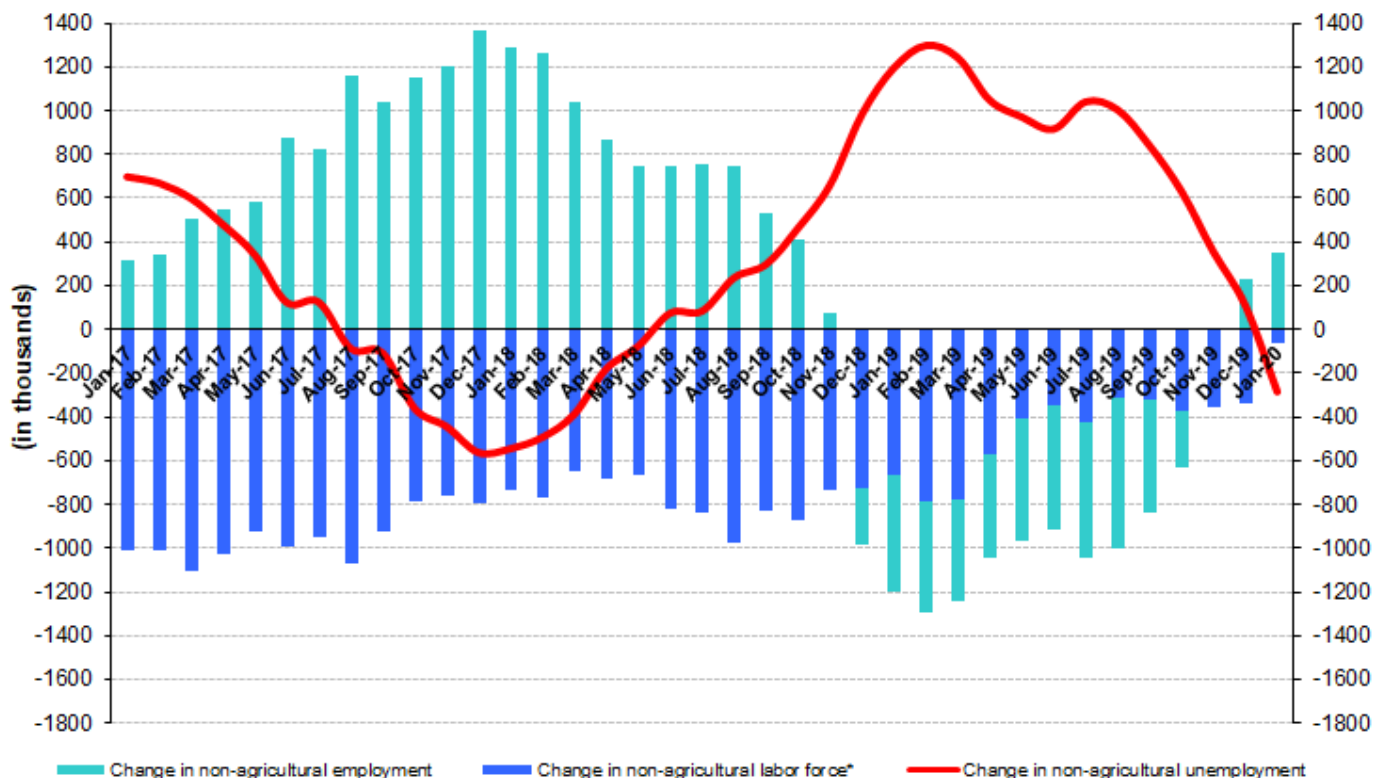


Source: TURKSTAT, Betam

Slowdown in non-agricultural labor force participation, limited increase in employment

Compared to January 2019, non-agricultural labor force increased by 62 thousand (0.2 percent) in January 2020 (Figure 4). The annual growth rate of labor force marked its lowest level in January 2020. While non-institutional working age population continued to increase, labor force participation rate decreases since January 2018. A year after the labor force participation rate recorded at 53.0 percent in January 2019, it dropped to 51.8 percent in January 2020. Year-on-year non-agricultural employment increased by 350 thousand (1.6 percent) and accordingly employment rate fell from 45.9 percent to 45.3 percent. As a result of that, in the period of January 2020 compared to January 2019, the number of non-agricultural unemployed decreased by 288 thousand.

Figure 4 Year-on-year changes in non-agricultural labor force, employment, and unemployment



* The change in labor force represented with a negative sign.

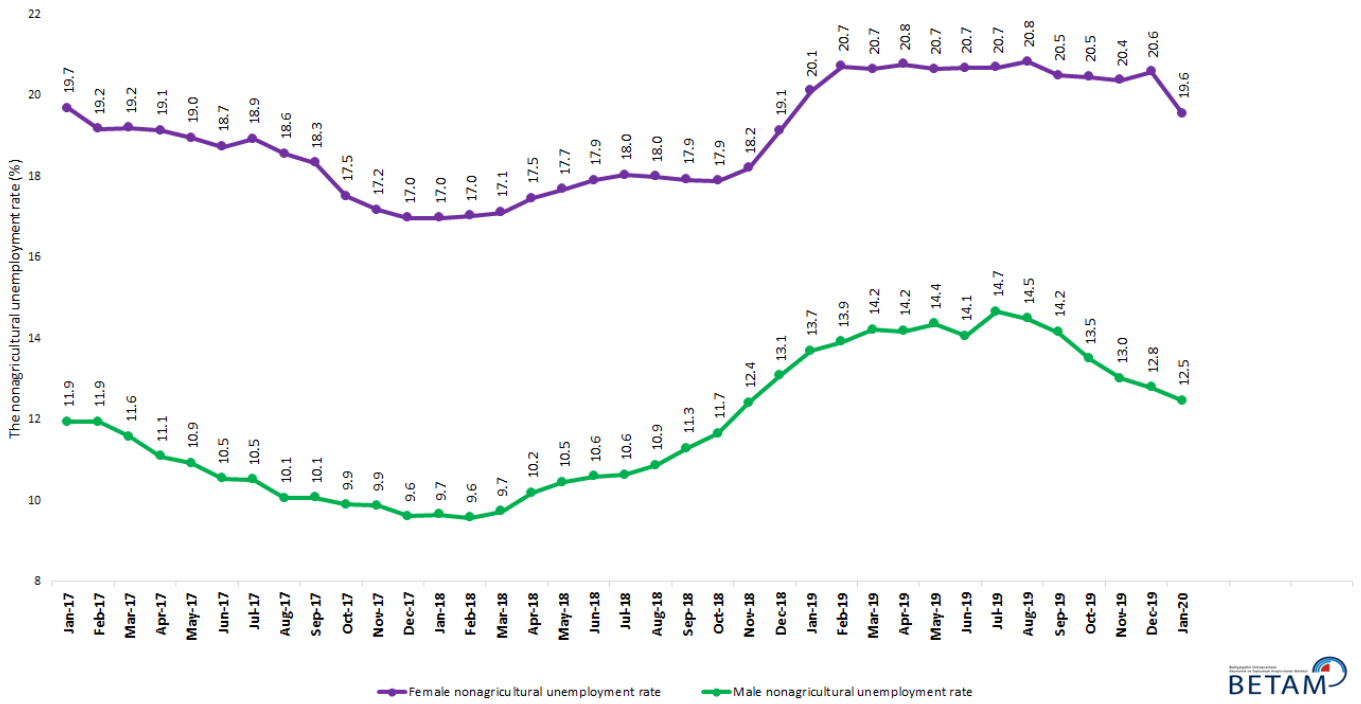
Source: TURKSTAT, Betam

Unemployment decreased for males and females due to lower labor force participation

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)⁴. In the period of January 2020 compared to the previous month, female non-agricultural unemployment rate decreased by 1.0 percentage point to 19.6 percent. This significant decrease in female unemployment rate resulted from the decrease (58 thousand) in the female labor force and the increase (39 thousand) in the employment. Male unemployment rate turned out to be 12.5 with 0.3 percentage point decrease. Even though male employment decreased by 80 thousand, this improvement in male unemployment rate arises from a decrease of 162 thousand in the male labor force participation. As a result, the gender gap in non-agricultural unemployment rates increased from 7.8 percent to 7.1 percent.

⁴ Turkstat revised the labor market statistics drastically in February 2014. Within this framework, they back casted various labor market indicators and they also continued to announce seasonally adjusted series. However, Turkstat is not providing back-casted series by gender. Therefore, female and male labor market statistics are not sufficiently long for the seasonal adjustment procedures (There should be minimum 36 observations). With the announcement of the period of February 2017 data, the number of observations required for the seasonal decontamination process was provided. From this period Betam generated seasonal adjustment series in terms of gender. Nevertheless, it should not be forgotten that seasonal adjustment may cause extra volatility in the series for at least a while.

Figure 5: Seasonally adjusted non-agricultural unemployment rate by gender



Source: Turk stat, Beta

Table 1 Seasonally adjusted non-agricultural labor market indicators (in thousands) **

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
January-17	25718	22092	3626	14.1%			
February-17	25815	22201	3614	14.0%	97	109	-12
March-17	25990	22429	3561	13.7%	174	228	-54
April-17	26074	22580	3494	13.4%	84	151	-67
May-17	26116	22643	3473	13.3%	43	63	-20
June-17	26144	22745	3399	13.0%	27	102	-75
July-17	26137	22713	3424	13.1%	-7	-32	25
August-17	26181	22882	3299	12.6%	44	169	-125
September-17	26247	22940	3307	12.6%	66	58	8
October-17	26253	23050	3203	12.2%	6	110	-104
November-17	26402	23207	3195	12.1%	149	157	-8
December-17	26427	23309	3118	11.8%	26	102	-76
January-18	26540	23408	3132	11.8%	112	99	13
February-18	26582	23472	3110	11.7%	42	64	-22
March-18	26628	23459	3169	11.9%	46	-13	59
April-18	26735	23447	3288	12.3%	108	-12	120
May-18	26784	23409	3375	12.6%	48	-38	86
June-18	26948	23499	3449	12.8%	165	90	75
July-18	26969	23490	3479	12.9%	21	-9	30
August-18	27166	23634	3532	13.0%	197	144	53
September-18	27084	23482	3602	13.3%	-81	-152	71
October-18	27147	23455	3692	13.6%	63	-27	90
November-18	27129	23277	3852	14.2%	-18	-178	160
December-18	27053	23022	4031	14.9%	-76	-255	179
January-19	27081	22829	4252	15.7%	28	-193	221
February-19	27264	22902	4362	16.0%	184	73	111
March-19	27416	22975	4441	16.2%	152	73	79
April-19	27427	22984	4443	16.2%	11	9	2
May-19	27326	22872	4454	16.3%	-101	-112	11
June-19	27397	22959	4438	16.2%	71	87	-16
July-19	27422	22897	4525	16.5%	24	-62	86
August-19	27471	22966	4505	16.4%	50	69	-19
September-19	27402	22990	4412	16.1%	-70	24	-94
October-19	27524	23203	4321	15.7%	123	213	-90
November-19	27482	23277	4205	15.3%	-43	74	-117
December-19	27370	23237	4133	15.1%	-112	-40	-72
January-20	27129	23168	3961	14.6%	-241	-69	-172

Source: Turk stat, Beta

Table 2 seasonally adjusted employment by sectors (in thousands) *

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
January-17	5436	5274	1956	14862				
February-17	5477	5251	2008	14942	41	-23	52	80
March-17	5385	5346	2087	14997	-92	95	79	55
April-17	5365	5372	2121	15087	-20	26	34	90
May-17	5396	5386	2085	15171	31	14	-36	84
June-17	5406	5383	2079	15283	10	-3	-6	112
July-17	5508	5363	2121	15229	102	-20	42	-54
August-17	5474	5437	2169	15276	-34	74	48	47
September-17	5499	5421	2122	15398	25	-16	-47	122
October-17	5479	5470	2091	15489	-20	49	-31	91
November-17	5493	5470	2130	15606	14	0	39	117
December-17	5552	5514	2178	15617	59	44	48	11
January-18	5500	5567	2202	15639	-52	53	24	22
February-18	5426	5627	2187	15658	-74	60	-15	19
March-18	5366	5618	2148	15694	-60	-9	-39	36
April-18	5365	5650	2093	15704	-1	32	-55	10
May-18	5318	5669	2043	15697	-47	19	-50	-7
June-18	5284	5737	2022	15740	-34	68	-21	43
July-18	5256	5703	1970	15817	-28	-34	-52	77
August-18	5215	5730	1971	15932	-41	27	1	115
September-18	5223	5698	1913	15871	8	-32	-58	-61
October-18	5283	5696	1851	15908	60	-2	-62	37
November-18	5207	5656	1800	15821	-76	-40	-51	-87
December-18	5178	5474	1707	15842	-29	-182	-93	21
January-19	5159	5392	1660	15777	-19	-82	-47	-65
February-19	5135	5388	1648	15866	-24	-4	-12	89
March-19	5129	5482	1598	15894	-6	94	-50	28
April-19	5048	5553	1569	15862	-81	71	-29	-32
May-19	5024	5546	1526	15800	-24	-7	-43	-62
June-19	5057	5616	1552	15791	33	70	26	-9
July-19	5119	5600	1523	15774	62	-16	-29	-17
August-19	5112	5551	1507	15909	-7	-49	-16	135
September-19	5104	5546	1507	15936	-8	-5	0	27
October-19	5010	5666	1557	15980	-94	120	50	44
November-19	5051	5758	1549	15970	41	92	-8	-10
December-19	4954	5699	1575	15963	-97	-59	26	-7
January-20	4922	5649	1577	15943	-32	-50	2	-20

Source: Turk stat, Beta

Table 3: Seasonally adjusted non-agricultural labor force by gender (thousands)

	Female Labor Force	Female Employment	Female Unemployed	Male Labor Force	Male Employment	Male Unemployed
January-17	7493	6018	1475	18240	16061	2179
February-17	7535	6090	1445	18249	16070	2179
March-17	7634	6168	1466	18353	16228	2125
April-17	7634	6173	1461	18427	16384	2043
May-17	7682	6226	1456	18442	16428	2014
June-17	7689	6248	1441	18448	16503	1945
July-17	7667	6216	1451	18444	16504	1940
August-17	7677	6252	1425	18492	16633	1859
September-17	7726	6309	1417	18516	16651	1865
October-17	7752	6394	1358	18496	16664	1832
November-17	7827	6482	1345	18547	16715	1832
December-17	7872	6535	1337	18559	16774	1785
January-18	7957	6606	1351	18601	16806	1795
February-18	7977	6618	1359	18620	16837	1783
March-18	7974	6609	1365	18643	16828	1815
April-18	8028	6626	1402	18720	16812	1908
May-18	8069	6642	1427	18748	16788	1960
June-18	8110	6657	1453	18862	16863	1999
July-18	8092	6632	1460	18885	16876	2009
August-18	8153	6685	1468	18993	16929	2064
September-18	8121	6665	1456	18952	16813	2139
October-18	8202	6734	1468	18911	16707	2204
November-18	8224	6726	1498	18888	16542	2346
December-18	8315	6724	1591	18753	16299	2454
January-19	8402	6711	1691	18699	16137	2562
February-19	8476	6719	1757	18785	16170	2615
March-19	8539	6775	1764	18853	16172	2681
April-19	8499	6733	1766	18926	16241	2685
May-19	8444	6700	1744	18913	16197	2716
June-19	8448	6701	1747	18957	16292	2665
July-19	8405	6665	1740	19060	16266	2794
August-19	8416	6662	1754	19040	16280	2760
September-19	8359	6645	1714	19024	16330	2694
October-19	8423	6699	1724	19052	16480	2572
November-19	8378	6670	1708	19081	16598	2483
December-19	8379	6654	1725	19020	16586	2434
January-20	8321	6693	1628	18858	16506	2352

Source: Turk stat, Beta